

UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF MICHIGAN  
SOUTHERN DIVISION

PIGGY PUSHERS, LLC,

Plaintiff,

File No. 1:10-CV-644

v.

HON. ROBERT HOLMES BELL

SKIDDERS FOOTWEAR, INC.,

Defendant.

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**OPINION**

Plaintiff Piggy Pushers is the owner of U.S. Patent No. 6,385,779 (“the ’779 patent”) entitled “Infant Sock.” The patent covers an infant sock designed to provide additional traction for a crawling infant. In this patent infringement action, Plaintiff contends that Defendant Skidders Footwear, Inc. has imported into the United States and offered for sale products that infringe claims 1, 3, 5-8, 10-11, and 13 of the ’779 patent. (Dkt. No. 28, Patent Claims Disclosure.) This matter is currently before the Court for claim construction pursuant to *Markman v. Westview*, 517 U.S. 370, 372 (1996). The parties have filed claim construction briefs (Dkt. Nos. 42, 49), and the Court heard oral arguments and the testimony of Defendant’s expert witness at a hearing on November 9, 2011.

**I.**

“The purpose of claim construction is to ‘determin[e] the meaning and scope of the patent claims asserted to be infringed.’” *O2 Micro Intern. Ltd. v. Beyond Innovation Tech.*

*Co., Ltd.*, 521 F.3d 1351, 1360 (Fed. Cir. 2008) (quoting *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976 (Fed. Cir.1995) (en banc), *aff'd*, 517 U.S. 370 (1996)). “When the parties raise an actual dispute regarding the proper scope of these claims, the court, not the jury, must resolve that dispute.” *Id.* A claim construction order dictates how the court will instruct the jury regarding the scope of a claim. *Id.*

“It is well-settled that, in interpreting an asserted claim, the court should look first to the intrinsic evidence of record, i.e., the patent itself, including the claims, the specification and, if in evidence, the prosecution history.” *Vitronics Corp. v. Conceptronic, Inc.* 90 F.3d 1576, 1582 (Fed. Cir. 1996). The court is also authorized to consider extrinsic evidence, such as expert testimony, dictionaries, and learned treatises. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1317 (Fed. Cir. 2005) (en banc).

Claim construction begins with the words of the claim. The words of the claim are given their ordinary and customary meaning, which is “the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention.” *Phillips*, 415 F.3d at 1313. “[T]he person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification.” *Id.* The court begins its claim construction process by reviewing these same resources. *Id.* “The best source for understanding a technical term is the specification from which it arose, informed, as needed, by the prosecution history.” *Id.* at 1315 (quoting *Multiform Desiccants, Inc. v. Medzam, Ltd.*,

133 F.3d 1473, 1478 (Fed. cir. 1998)). “It is therefore entirely appropriate for a court, when conducting claim construction, to rely heavily on the written description for guidance as to the meaning of the claims.” *Id.* at 1317. However, the Court must be mindful to avoid the danger of importing limitations from the specifications into the claim. *Id.* at 1323. “The construction that stays true to the claim language and most naturally aligns with the patent’s description of the invention will be, in the end, the correct construction.” *Id.* at 1316 (quoting *Renishaw PLC v. Marposs Societa per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998)).

## II.

Plaintiff contends that the only term that requires construction is “sock member sized to fit a foot of an infant learning to crawl.” Plaintiff contends that the plain and ordinary meaning should apply to all other terms. (Dkt. No. 42, Pl.’s Claim Constr. Br.) Defendant contends that nine terms require construction: “sock,” “sock member,” “exterior lower surface,” “sized to fit a foot,” “infant learning to crawl,” “thermal process,” “ribs,” “elastic band,” and “entrance band.” (Dkt. No. 49, Def.’s Markman Br.)

### A. “sock member sized to fit a foot of an infant learning to crawl”

Plaintiff contends that “sock member sized to fit a foot of an infant learning to crawl” is the only term that requires construction. Plaintiff’s proposed construction is “a sock member for an infant ranging from about four months of age to about one year of age.”

Defendant contends that the phrase “sock member sized to fit a foot of an infant

learning to crawl” should be broken down into its constituent parts of “sock,” “sock member,” and “sized to fit a foot.”

Plaintiff’s proposed construction does not construe “sock member,” or “sized to fit a foot.” Plaintiff’s construction only addresses the age of an infant learning to crawl. Defendant does not dispute that the typical age for an infant learning to crawl is about four months of age to about one year of age. This is the age identified in the description of the preferred embodiment. *See* ’779 patent col 2, ll. 52-54; ’779 , col. 3, ll. 35-38. Because there is no dispute as to the age of an infant learning to crawl, the term “infant learning to crawl” does not require construction.

#### **B. “Sock”**

Defendant contends that “sock” should be construed as “a knitted or woven covering for the foot usually worn under shoes and extending above the ankle and sometimes to the knee.”

Plaintiff contends that there is no need to separately construe “sock” because “sock” only appears in the preamble of Claims 1 and 13, and is not a limitation on the claims. In addition, Plaintiff contends that neither the claims nor a reasonable reading of the ’799 patent as a whole requires that a “sock” or “sock member” be formed of a certain material.

The two independent claims at issue, Claims 1 and 13, begin with the same preamble: “An infant sock for crawling infants comprising: . . . .” The preambles are followed by:

a sock member sized to fit a foot of an infant learning to crawl, said sock member having an exterior upper surface and an exterior lower surface extending between an open end and a closed end, said closed end having an exterior toe surface . . . .

'799 patent, col. 4, ll. 14-18; '799 patent, col. 5, ll. 5-9.

The question raised by Defendant's request for construction of "sock" is whether the preamble is a limitation on the claim. There is no litmus test for determining whether language in the preamble is a limitation on the claim. "[W]hether to treat a preamble as a claim limitation is determined on the facts of each case in light of the claim as a whole and the invention described in the patent." *Bicon, Inc. v. Straumann Co.*, 441 F.3d 945, 952 (Fed. Cir. 2006) (quoting *Storage Tech. Corp. v. Cisco Sys., Inc.*, 329 F.3d 823, 831 (Fed. Cir. 2003)). "Whether to treat a preamble as a limitation is a determination resolved only on review of the entire[ ] . . . patent to gain an understanding of what the inventors actually invented and intended to encompass by the claim." *Poly-America, L.P. v. GSE Lining Tech., Inc.*, 383 F.3d 1303, 1309 (Fed. Cir. 2004) (quoting *Corning Glass Works v. Sumitomo Elec. U.S.A., Inc.*, 868 F.2d 1251, 1257 (Fed. Cir. 1989)). "[A] preamble is a claim limitation if it recites essential structure or steps, or if it is necessary to give life, meaning, and vitality to the claim. On the other hand, a preamble is not limiting where a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention." *Id.* at 1309-10 (internal quotations and citations omitted). "A claim's preamble may limit the claim when the claim drafter uses the preamble to define the subject matter of the claim." *August Technology Corp. v. Camtek, Ltd.*, 655 F.3d 1278, 1284 (Fed. Cir. 2011) (quoting *Allen Eng'g Corp. v. Bartell Indus.*, 299 F.3d 1336, 1346 (Fed. Cir. 2002)).

All seven of the dependent claims at issue in this case refer to the “infant sock according to claim 1.” Five of those dependent claims refer to “said sock member” in the body of the claim. The ’799 patent is entitled “Infant Sock.” The Abstract describes “[a]n infant sock for crawling infants.” The Background provides that the invention “relates generally to a sock for an infant,” and proceeds to explain the advantages of socks over shoes.<sup>1</sup> The Background provides that it is “the object of this invention, therefore, to provide an infant sock suitable for both crawling and walking infants with a decreased risk of injury to the crawling infant wearing the sock.” ’799 patent, col. 1, ll. 46-49. The Summary of the Invention provides that the invention “concerns an infant sock for use with a crawling infant.” ’799 patent, col. 1, ll. 52-53. The drawings contain views of “infant socks.” ’799 patent, col. 2, ll. 30-34. The Court concludes that the preamble gives meaning to the claim, and is used to define the subject matter of the claim, rather than to merely state a purpose or intended use for the invention. Accordingly, it is proper to construe the term “sock” as used in the preamble as a limitation on the claim.

Defendant contends that the term “sock” should be construed as “a knitted or woven covering for the foot usually worn under shoes and extending above the ankle and sometimes to the knee.” This is consistent with the dictionary definition and with the testimony of Caroline de Baere, an expert in the footwear industry.

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<sup>1</sup>The Background specifically distinguishes the invention from shoes. “Dressing the infant with shoes is one solution to this problem [slipping], but it is not always desirable, and is often difficult, to put shoes on an ambulatory infant.” ’799 patent, col. 1, ll. 22-25.

Plaintiff contends that is improper to construe “sock” because the claims sufficiently define what a “sock member” is. Plaintiff contends that Defendant’s construction of “sock” is inconsistent with the intrinsic evidence and violates the claim construction rule that a patentee can be his/her own lexicographer.

The definition Plaintiff refers to is found in Claims 1 and 13:

a sock member sized to fit a foot of an infant learning to crawl, said sock member having an exterior upper surface and an exterior lower surface extending between an open end and a closed end, said closed end having an exterior toe surface . . .

’799 patent, col. 4, ll. 14-18; ’799 patent, col. 5, ll. 5-9.)

The claim language describes certain elements of the sock member. The description is consistent with the plain or ordinary meaning of a sock. Nothing in the claim language or the specifications suggests that the inventor intended “sock” to mean anything other than what a person of ordinary skill in the art of footwear would understand it to mean. The Background of the ’799 patent begins with a discussion of the advantages of fabric socks, and improving on fabric socks by adding traction. It differentiates socks from shoes. The Description of the Preferred Embodiment states that the sock member is “preferably constructed of a natural fabric material, such as cotton, or a synthetic fabric material, such as Lycra or spandex, or a combination of such materials.” ’799 patent, col. 2, ll. 45-48. Defendant’s proposed construction of “sock” is not inconsistent with the intrinsic evidence. The Court will construe “sock” as “a knitted or woven covering for the foot.” The Court will omit the phrase “usually worn under shoes” because the ordinary definition of sock

recognizes that socks are not always worn under shoes, and the patent does not address wearing the invention under shoes.

**C. “Sock member”**

Defendant contends that “sock member” should be construed as “the fabric part of the sock.”

Plaintiff contends that the term does not need to be construed. Plaintiff contends that the claim language surrounding the phrase “sock member” provides sufficient context without the need to import additional limitations from the specification.

The patent claims an infant sock for crawling infants comprising a sock member and a gripper member. ’799 patent, Claims 1 and 13.

Plaintiff does not challenge Defendant’s assertion that a “sock member” is a part of a “sock.” Plaintiff appears to be concerned with the limitation that the “sock member” be the “fabric” part of the sock. The Court will construe “sock member” simply as “a part of the sock.” Because the Court has already construed “sock” as “a knitted or woven covering for the foot,” and because the “sock member” is “a part of the sock,” there is no need to define the material from which the “sock member” is constructed. Moreover, using different terms for the material for “sock member” (fabric) and for “sock” (knitted or woven) would only add confusion.

**D. Exterior Lower Surface**

Defendant contends that “exterior lower surface” should be construed in accordance



with its plain and ordinary meaning as “an outside bottom surface” of the sock member. Plaintiff contends that the phrase “exterior lower surface” should retain its plain and ordinary meaning and that no construction of the claim phrase is required. However, if a construction is necessary, Plaintiff suggests that “exterior lower surface” be defined as “the part of the outside surface of a sock member that is lower in physical position than the upper surface.”

The plain and ordinary meaning of “exterior lower surface” as the term is used in the ’799 patent, is “an outside bottom surface” of the sock member. The specification expressly states that “Figure 1 is a **bottom view** of an infant sock in accordance with the present invention.” ’799 patent, col, 2, ll. 30-31 (emphasis added). In addition, the patent is designed to address the problem of prior socks with traction only on the bottom of the sock which were disadvantageous for crawling infants who contact the floor surface with the foot closest to the toes or the top of the foot rather than the bottom of the foot. ’799 patent, col. 1, ll. 26-36. The patent’s reference to the exterior lower surface corresponds to the exterior portion of the sock member that conforms to the bottom of the foot . The Court will accordingly construe “exterior lower surface” as “an outside bottom surface” of the sock member.

#### **E. “Sized to fit a foot”**

Defendant contends that “sock member sized to fit a foot” should be construed as “the sock’s fabric parts (its upper and lower surfaces) are of a size such that they comfortably conform to the infant’s foot.” Defendant relies on the declaration of its expert to show that

to a person of ordinary skill in the art, a sock is sized to fit a foot when it comfortably conforms to the foot.

Plaintiff contends that this phrase should be construed as “a sock member for an infant ranging from about four months of age to about one year of age.”

Defendant contends that Plaintiff’s proposed construction eliminates the import of the words “sized to fit a foot” from the construction. Plaintiff contends that it has not eliminated sizing because its proposed construction impliedly addresses sizing by describing the age range.

Claim construction must give meaning to all of the words in the claims. *Exxon Chem. Patents, Inc. v. Lubrizol Corp.*, 64 F.3d 1553, 1557 (Fed. Cir. 1995); *see also In re Sabatino*, 480 F.2d 911, 913 (C.C.P.A. 1973) (“Claim limitations defining the subject matter of the invention are never disregarded.”). The claim references the size of the sock member. Plaintiff’s proposed reference to the age of an infant does not address the size of the sock member. Defendant’s proposed construction adds a limitation relating to “comfort” that is not found within the patent. The Court will construe “a sock member sized to fit a foot of an infant learning to crawl” as “a sock member of a size such that it conforms to the foot of an infant learning to crawl.”

#### **F. “Infant learning to crawl”**

As noted above, Defendant does not disagree with Plaintiff’s assertion that the typical age for an infant learning to crawl is about four months of age to about one year of age. This

is the age identified in the description of the preferred embodiment. *See* '779 patent col 2, ll. 52-54; '779 , col. 3, ll. 35-38. Because there is no dispute as to the age of an infant learning to crawl, the term “infant learning to crawl” does not require construction.

#### **G. “Thermal Process”**

Claim 6 includes the limitation “wherein said gripper member is adhered to said sock member by a thermal process.” The specifications note that the material of the gripper member “may be adhered to the sock member by a thermal process, such as an applique process.” '799 patent, col. 3, ll. 61-64. Defendant contends that “thermal process” should be construed as “a process which adheres one existing component to another such as an applique process.” Plaintiff contends that the phrase “thermal process” should either not be defined, or defined as “a process related to heat.”

Defendant contends that “thermal process” refers to a process which takes a component, namely, a “gripper member,” and applies heat to thermally adhere it to the sock member. Defendant’s proposed definition, however, is incomplete because it does not include the concept of heat. Plaintiff’s proposed definition includes the concept of heat, but not adherence. The claim language discussed adherence by a thermal process. This language is clear, and does not require any construction.

#### **H. “Ribs”**

Claim 8 references a “gripper member” with a “plurality of spaced apart ribs.” The parties’ only dispute is whether the term “ribs” should be construed. Defendant contends that

“ribs” should be defined according to its plain and ordinary meaning as “raised strips.” Plaintiff contends that “ribs” does not need to be defined, and further contends that nothing in the Description of the Preferred Embodiment requires the ribs to be “raised strips.”

The Preferred Embodiment states that “The gripper member **112** can be formed as a tread pattern composed of a series of spaced ribs **113** extending transverse to a length of the sock member **111**.” ’799 patent, col. 3, ll. 40-43. The gripper member has a coefficient of friction greater than a coefficient of friction of any of the other exterior surfaces of the sock member. Claims 1, 13. The gripper member is “preferably constructed of a material that increases the coefficient of friction between two materials, such as a rubber material or the like” that is “flexible and withstands laundering.” ’799 patent, col. 3, ll. 57-60.

The Court believes that it is not appropriate to define ribs as “raised strips.” The specifications would allow them to be raised, but they do not require them to be raised. In addition, while the dictionary definition of “rib” as an elongated ridge suggests a raised surface, the examples of a vein of an insect’s wing, one of the primary veins of a leaf, or one of the ridges in a knitted or woven fabric do not appear to require a raised surface. The Court accordingly declines to construe the term “rib” as there is no need to introduce the limitation requested by Defendant. “Rib” can be understood according to its plain and ordinary meaning.

#### **I. “Elastic Band”**

Defendant contends that the term “elastic band” as used in Claim 10 should be defined

as “a band of elastic attached near the open end of the sock member described above,” in order to distinguish it from any inherent elasticity in the sock member itself. The Court does not find any need to construe the term. Claim 10 recites “an elastic band attached adjacent said open end of said sock member.” Because the term “attached” is in the claim language, there is no need to construe the claim language to include an attachment requirement.

**J. “Entrance Band”**

Defendant contends that the term “entrance band” as used in Claim 11 should be defined as “a band attached at the entrance to the sock member at its ‘entrance’ or ‘open end,’” in order to show that the band is attached. The Court does not find any need to construe the term. Claim 11 recites “an entrance band attached at said open end of said sock member.” Because the term “attached” is in the claim language, there is no need to construe the claim language to include an attachment requirement.

An order consistent with this opinion will be entered.

Date: March 5, 2012

/s/ Robert Holmes Bell  
ROBERT HOLMES BELL  
UNITED STATES DISTRICT JUDGE